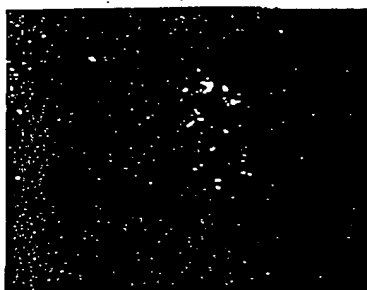


05734265 120500

A. E16



B. P60

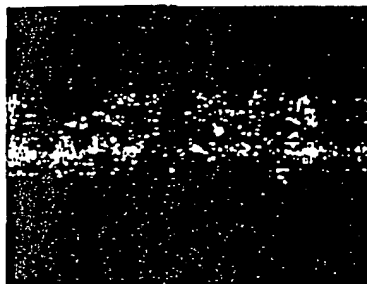
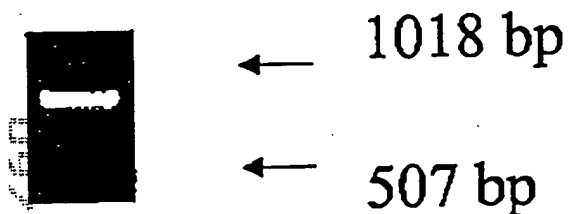


Fig. 1

## Figure 2

### Nestin RT-PCR of 50 rat islets



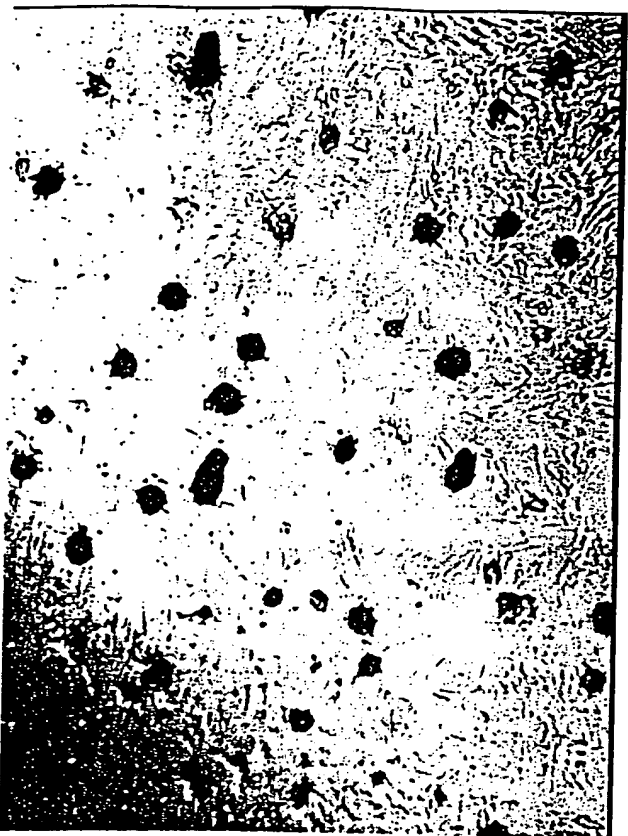
Amplification of a single band of the correct size of 834 bp. In between the forward [GCGGGGCGGTGCGTGACTAC] and reverse primer [GGGTGGTGAGGGTTGAGGTTTGTG] are 3 introns located.

# Nestin positive cells proliferate around islets in vitro

[illegible]

Figure 4

**Development of islet-like structures in vitro**



100x



200x

0034355 120600

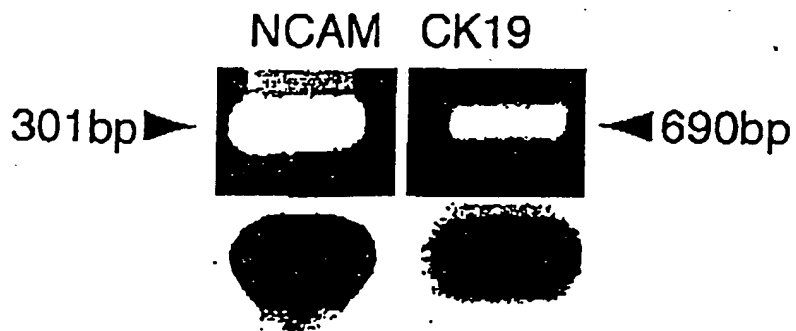


Fig. 5

Figure 6

# Induction of nestin mRNA expression by high glucose in pancreatic islets

RT-PCR of 50 rat islets incubated for 4 days at 5.6 mM or 16.7 mM glucose

APRT

Nestin

	low glucose		high glucose		low glucose		high glucose	
cycle	26	27	26	27	32	34	32	34
ratio high/low glucose	1.74	1.69			3.18	2.91		

Figure 7 (v)

Nestin Amino Acid Sequence:

"MEGCMGEESFQMWELNRRLEAYLGRVKALEEQNELLSAGLGGLR  
RQSADTSWRAHADDELAALRALVDQRWREKHAAEVARDNLAELEGVAGRCEQLRL  
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APRLPAPRPPAPAPEVEELARRLGEAWRGAVRGYQERVAHMETS LDQTRERLARAVQ  
GAR  
EVRLELQQLQAERGGLLERRAALEQRLEGRWQERLRATEKFQLAVEALEQEKQGLQSQ  
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PQAPSPA VDAEIRAQDAPLSLLQTQGGRKQAPEPLRAEARVAIPASVLPGPPEPGGQR  
QEASTGQSPEDHASLAPPLSPDHSSLEAKDGESGGSRVFSICRGE GEGQIWGLVEKET  
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SGGNESSRK GNSRTTGVC GSEPRDIQTPGRGESGII EISGSMEPGFEFISRGVDKESQ  
RNLEEEENLGKGEYQESLRSLEEEGQELPQSADVQRWEDTVEKDQELAQESPPGMAGV  
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GSSVGS LQALSSSQRGEFLES DSVSVSPWDDSLRGAVAGAPKTALETESQDSAEP SG  
SEEESDPVSLEREDKVP GPLEIPSGMEDAGPGADIIGVNGQGPNLEGKSQHVN GGVMN  
GLEQSEESGARNALVSEGDRGSPFQEEEGSALKRSSAGAPVHLGQGQFLKFTQREGDR  
ESWSSGED"

Nestin Nucleotide Sequence:

BASE COUNT 1238 a 1176 c 1676 g 764 t ORIGIN 1

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Figure 7 (continued) (2)

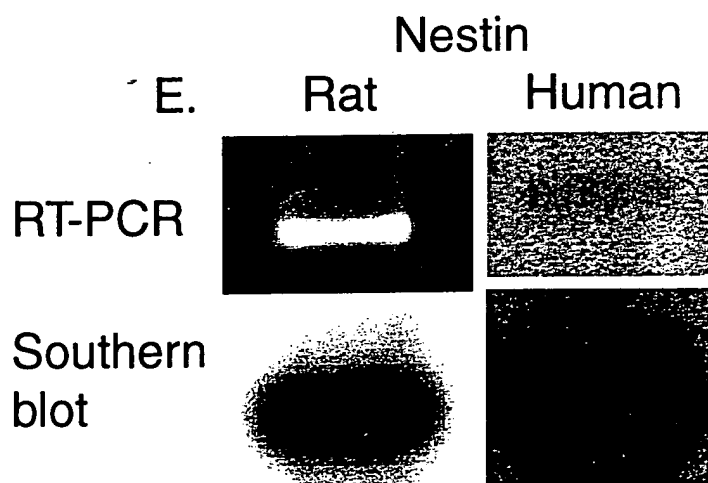
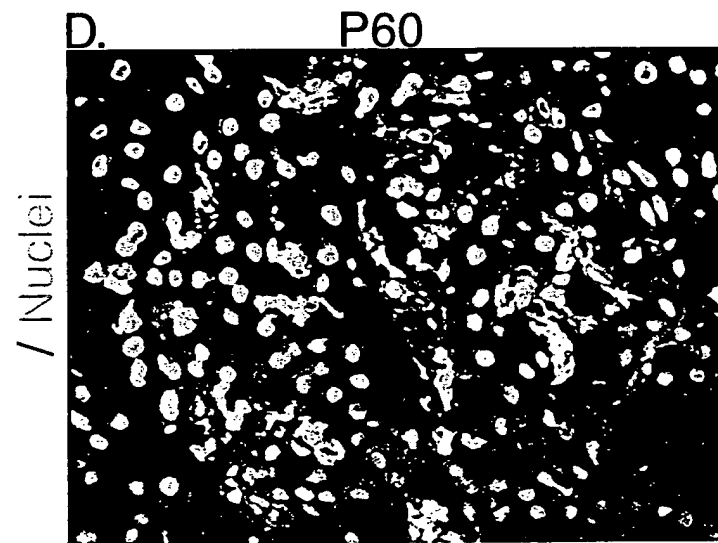
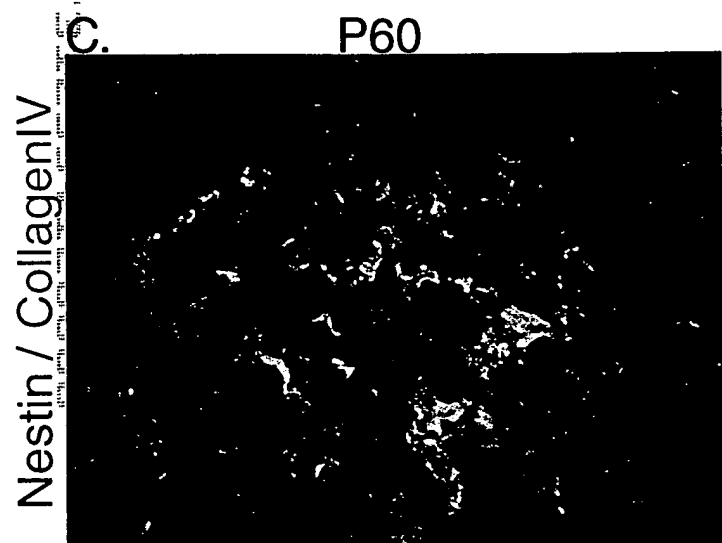
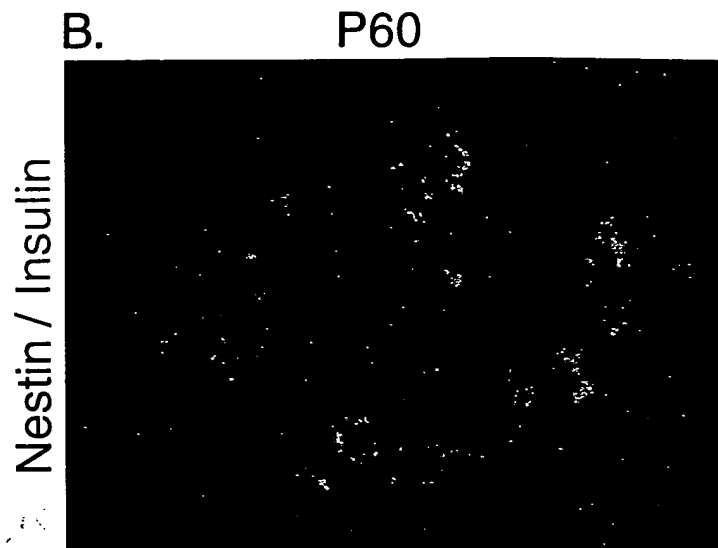
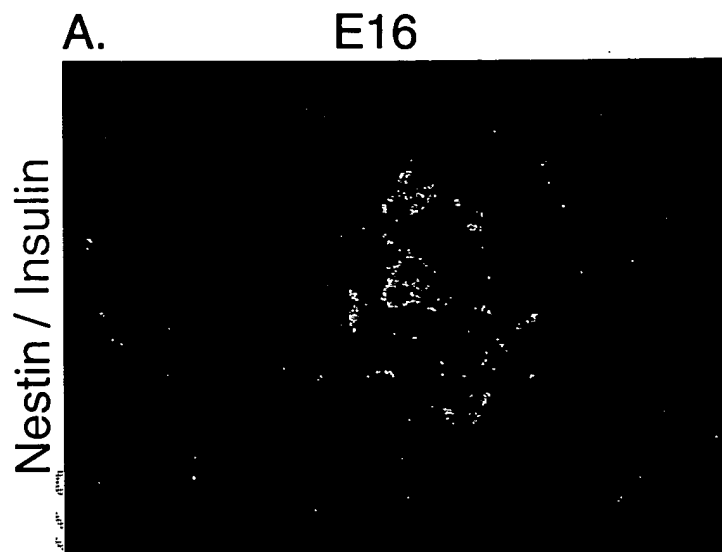
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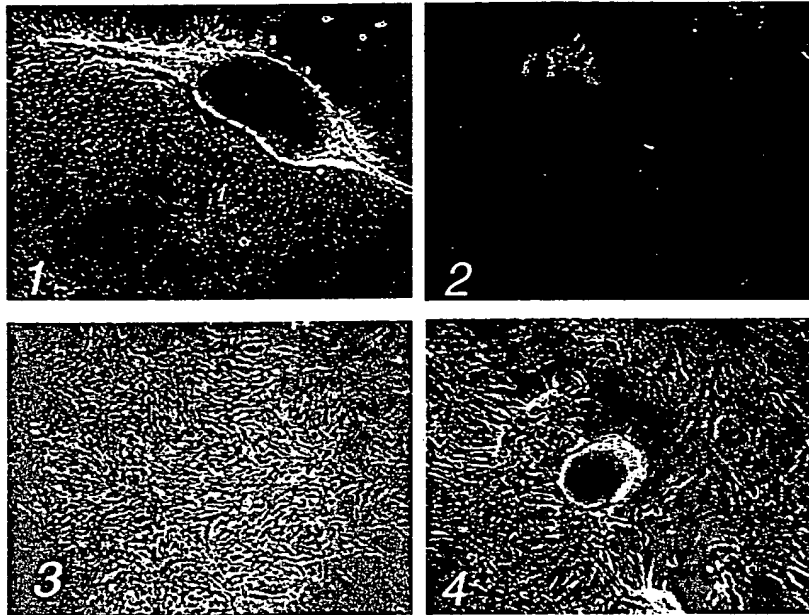
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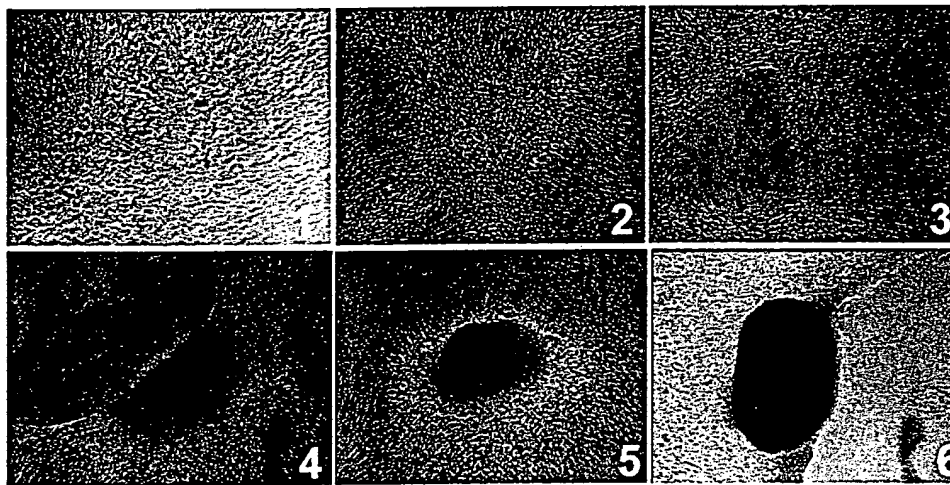


009037-5537E260

A



B



C

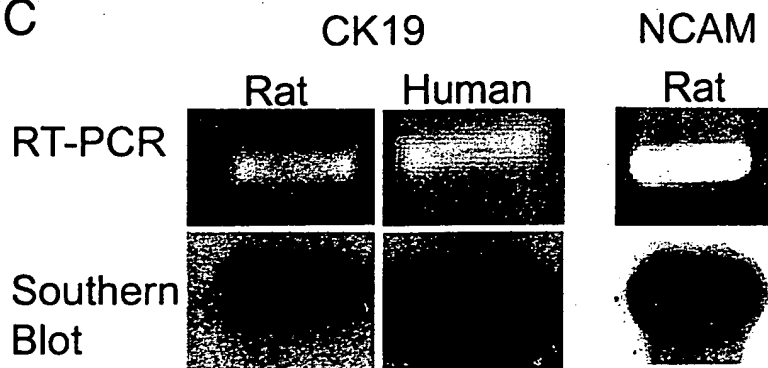
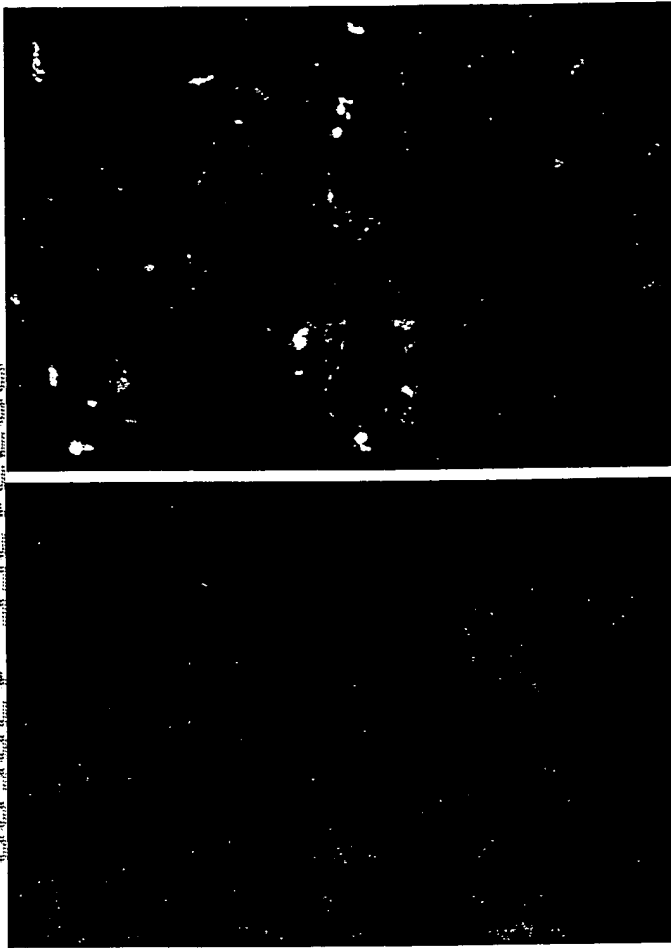


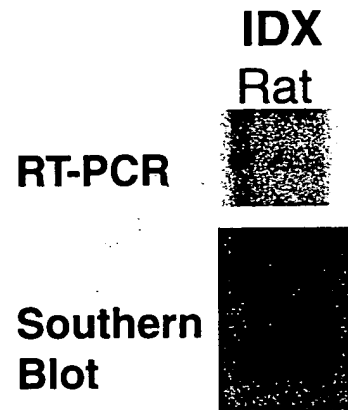
Fig 9

Fig 9

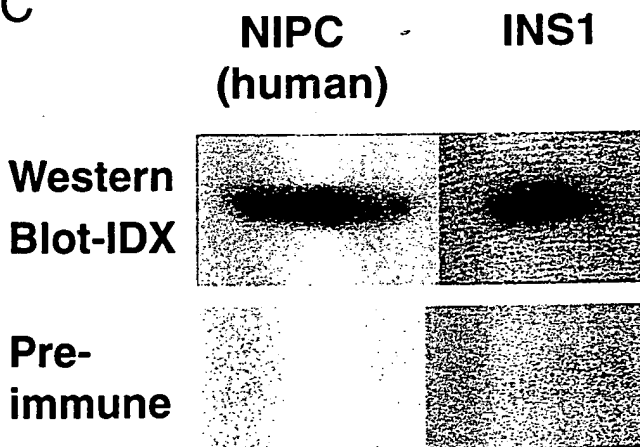
A



B



C



D

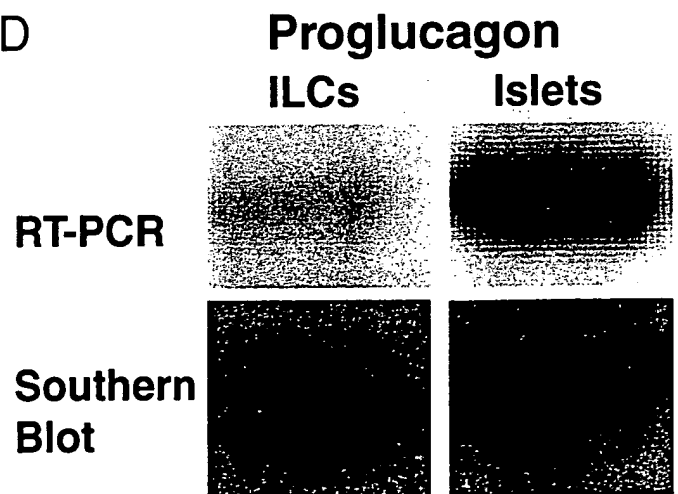
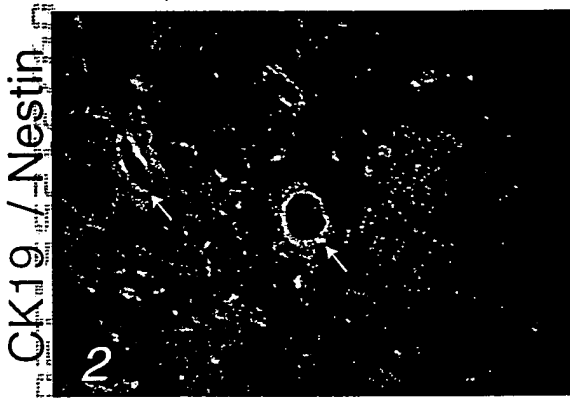
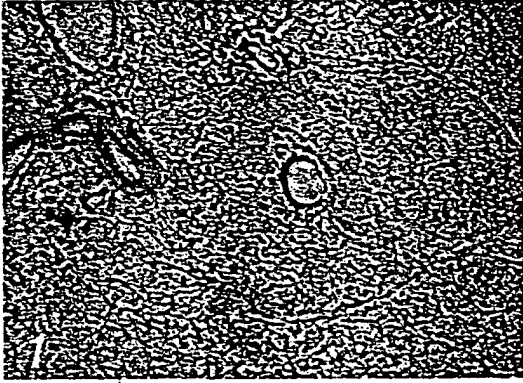


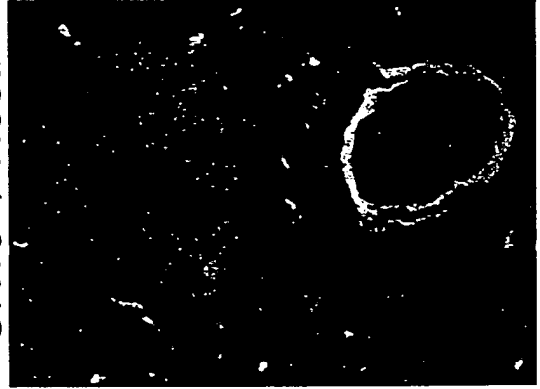
FIG 10

A



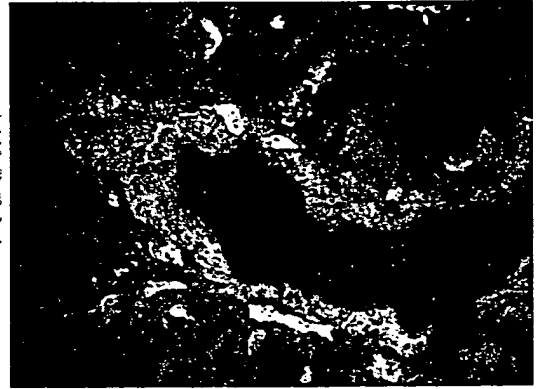
B

CK19 / Nestin

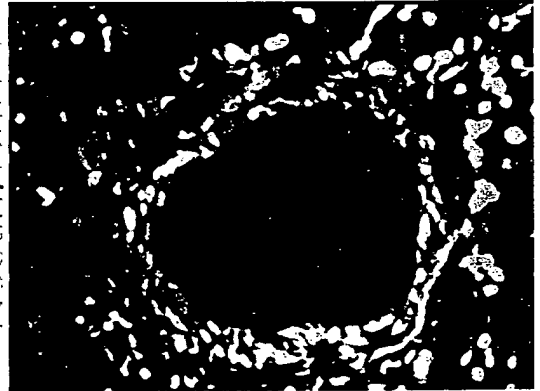


C

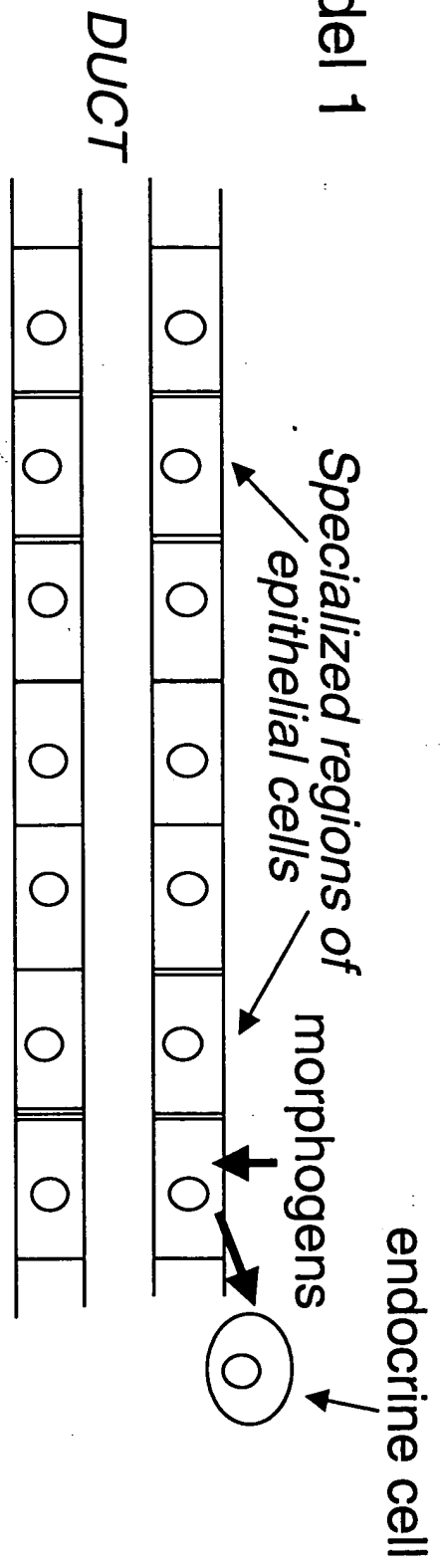
Nestin



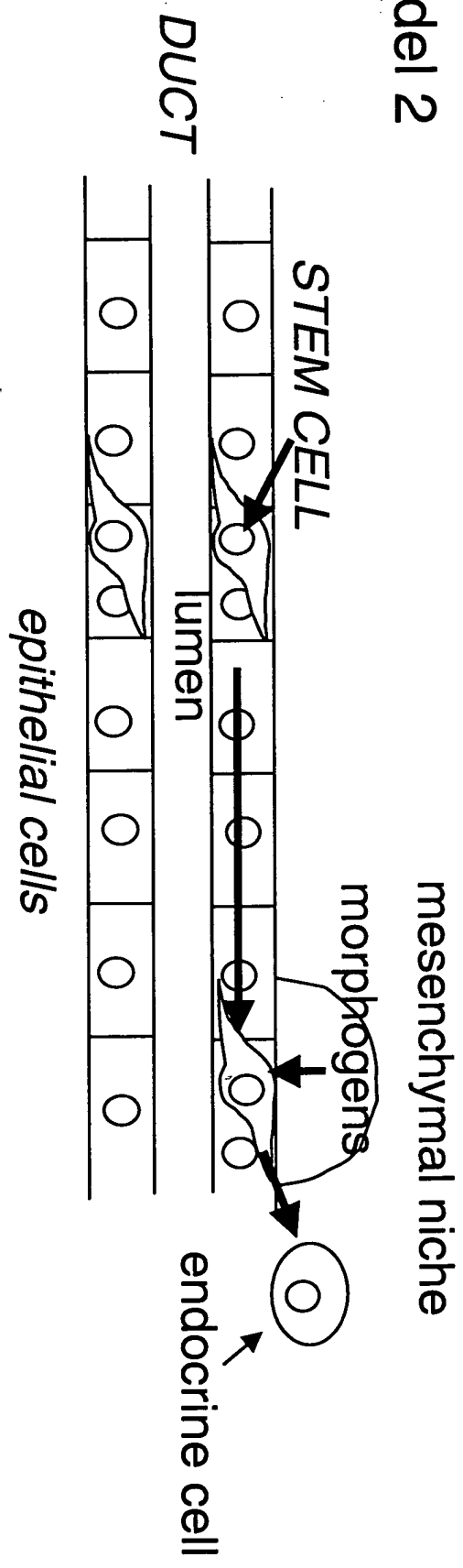
Nestin / CK19



# Model 1



# Model 2



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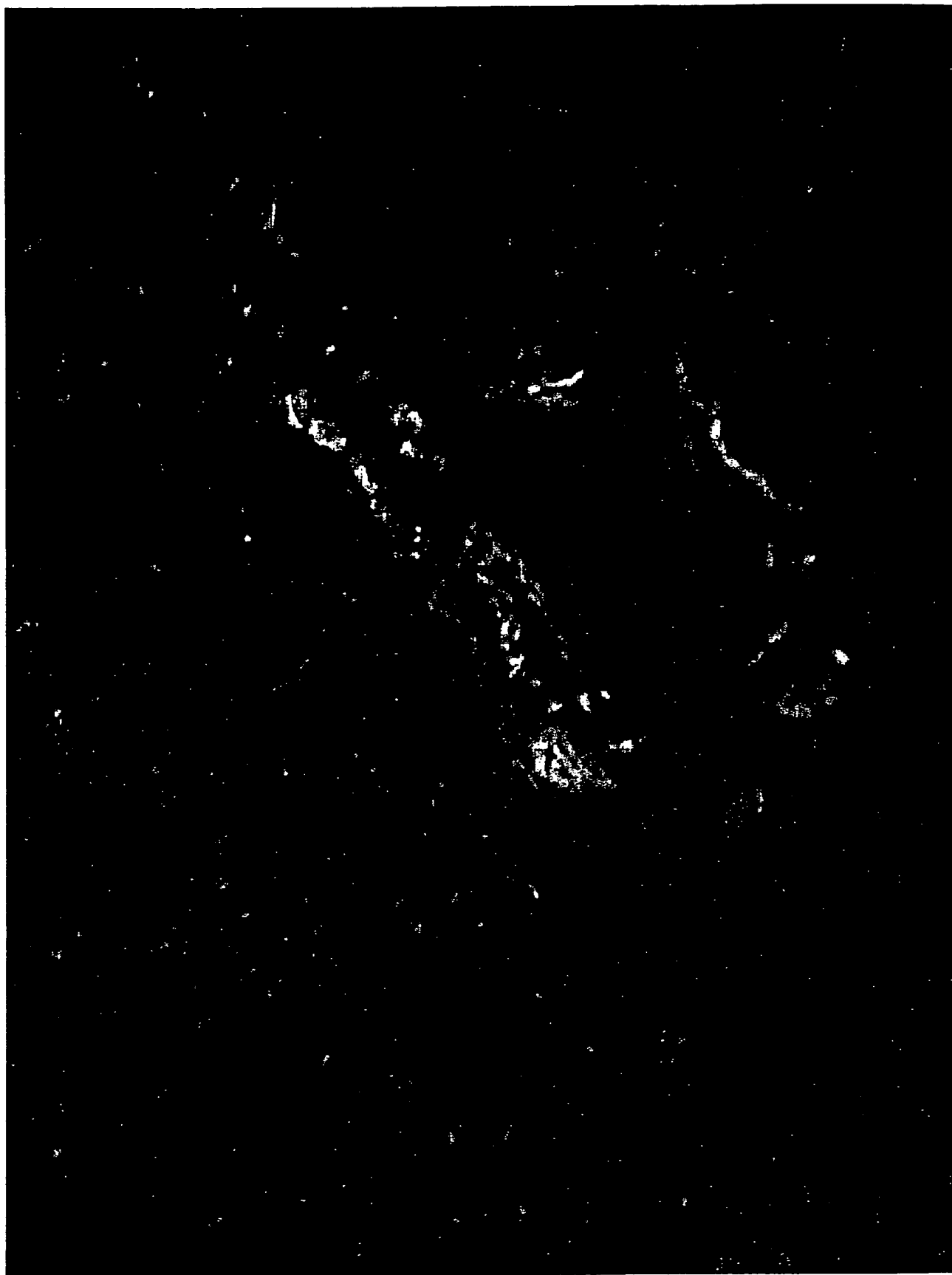


Fig 13A

Fig 13A

09734255 120500

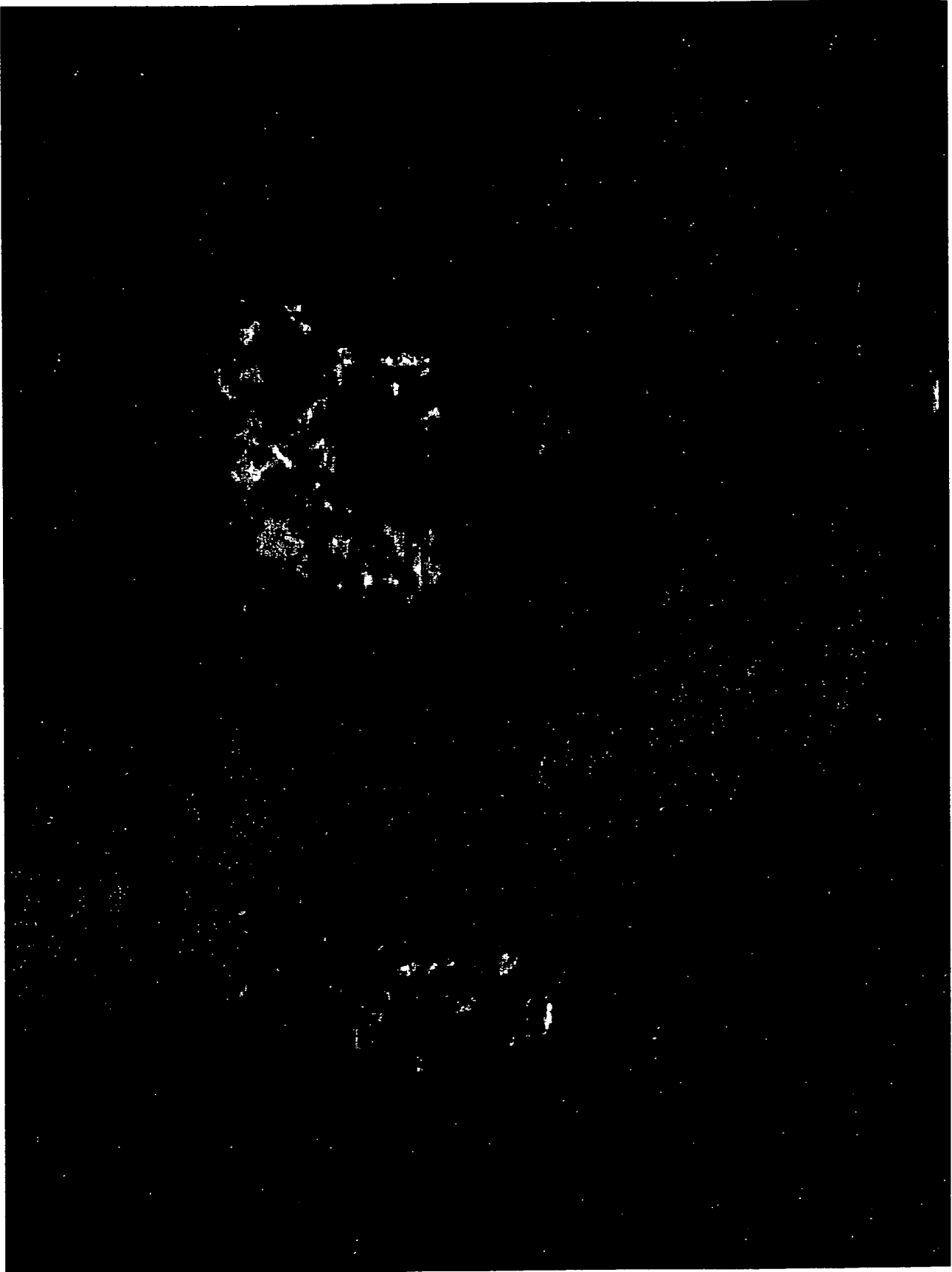


Fig 13 B

Fig 13 B



# Sequential appearance of transcription factors during development of the endocrine pancreas (mouse)

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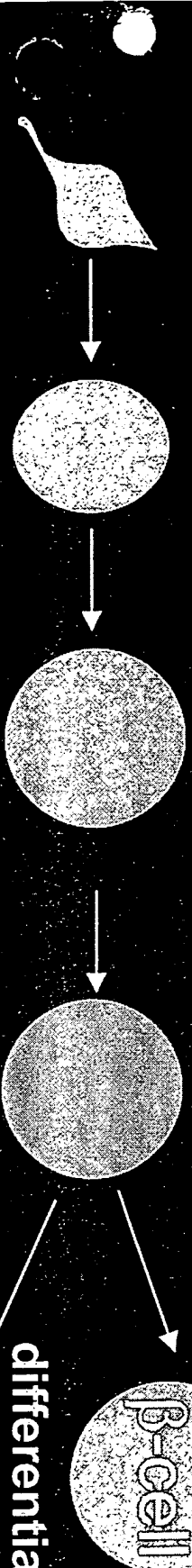
1st transition

2nd transition

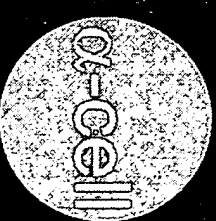
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glucagon  
(insulin)  
  
PDX-1  
Ngn-3  
  
No hormones

PDX-1  
Beta2/neuroD  
Isl1  
Pax6  
Nkx6.1

Stem cell  
  
Progenitor cell  
  
proliferation



Brain-4  
Beta2/neuroD  
Isl1  
Pax6



**A**

## Islets

## RT-PCR

## Southern Blot

# B

# Insulin

## NIPs+SCs

## Islets

## RT-PCR

## Southern Blot

C

A bar graph showing Insulin levels (pg/ml) for three treatments: Control, Dish 1, and Dish 2. The y-axis is labeled 'Insulin, (pg/ml)' and ranges from 0 to 250 with major ticks every 25 units. The x-axis is labeled 'Treatment' and has three categories: Control, Dish 1, and Dish 2. The Control bar is approximately 75 pg/ml, Dish 1 is approximately 225 pg/ml, and Dish 2 is approximately 60 pg/ml.

Treatment	Insulin (pg/ml)
Control	75
Dish 1	225
Dish 2	60

[illegible]

**NEURO-  
ENDOCRINE**

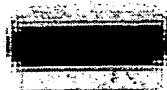
**EXOCRINE**

**HEPATIC**

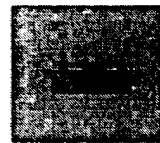
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**AMY**



**TTR**



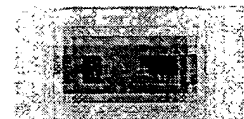
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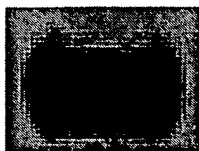
**CARB**



**HGF**



**GLUT-2**



**E-CAD**



**XBP**



**AFP**



09734255 420600